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Amendments to the Claims

1-35. (cancelled)

36. (previously presented) A rotary spindle assembly comprising a rotary drive motor, a rotary spindle, a wafer support, a wafer processing bowl, a heat regulating flange, and a heat regulating element, wherein:

 said wafer support is secured to said rotary spindle so as to be rotatable with said spindle;

 said rotary spindle defines a lower spindle area and an upper spindle area;

 said rotary spindle is mechanically coupled to said rotary drive motor in said lower spindle area;

 said heat regulating flange is positioned in said lower spindle area;

 said heat regulating element is positioned in said upper spindle area;

 said heat regulating element comprises a fluid conduit defining a substantially cylindrical heat regulation void about a portion of said rotary spindle in said upper spindle area;

 said heat regulating element defines an open framework arranged about said rotary spindle such that upper and lower ends of said heat regulating element are open to said substantially cylindrical heat regulation void from said lower spindle area to said upper spindle area; and

 dimensions of said cylindrical heat regulation void defined by said heat regulating element are established so as to permit flow of exhaust gases from said lower spindle area beyond said lower end of said heat regulating element through said upper spindle area beyond said upper end of said heat regulating element.

37. (canceled)

38. (canceled)

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39. (previously presented) A rotary spindle assembly as claimed in claim 36 wherein said heat regulating flange further comprises a temperature sensor positioned within said flange body proximate said rotary spindle passage.

40. (previously presented) A rotary spindle assembly as claimed in claim 39 wherein said rotary spindle assembly further comprises:

at least one liquid source coupled to said fluid conduit; and
a controller coupled to said at least one liquid source and said temperature sensor, said controller being programmed to be responsive to a temperature signal generated by said temperature sensor.

41. (previously presented) A rotary spindle assembly as claimed in claim 39 wherein said temperature sensor is positioned within a bore defined within said flange body;

42. (previously presented) A rotary spindle assembly as claimed in claim 41 wherein said bore extends from an outer periphery of said flange body to an inner periphery of said flange body proximate a rotary spindle passage defined in said flange body.

43. (canceled)